

THE WOLF SPIDERS OF AUSTRALIA (ARANEAE: LYCOSIDAE): 7.  
TWO NEW SPECIES FROM VICTORIA

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ABSTRACT

Two new species of Wolf Spider, *Lycosa mayama* and *Lycosa neboissi*, from near Melbourne, Victoria, are described.

An examination of the Wolf Spiders in the collection of the National Museum, Victoria (NM), kindly forwarded on loan by Mr A. Neboiss, disclosed the presence of two undescribed species in the suburban area of Melbourne. Because little systematic collecting of lycosids has been done in Victoria, the occurrence of new species near Melbourne is not unexpected.

Thirteen species of the subfamily Lycosinae have been recorded from Victoria (McKay 1973); New South Wales has over 40 species recorded, and Queensland has 32 plus a number of undescribed species. A considerable amount of collecting will be necessary to fully document the Australian Wolf Spiders and at this early stage, although some most interesting distribution patterns and speciation problems are emerging, such questions are premature with so much of the lycosid fauna unknown.

*Lycosa mayama* sp. nov.  
(Fig. 1a-d)

MATERIAL EXAMINED

HOLOTYPE: National Museum, Victoria (NM), ♂ M (CL 8.3 mm), Werribee, Victoria, collector unknown, 22.ix.68. In spirit.

PARATYPES: Broadmeadows, Melbourne, Victoria, F. P. Spry, 27.ix.07, ♀ M (CL 6.5) ♀ M (CL 6.8), NM.

DESCRIPTION (Based on the holotype.)

Carapace medium brown with a very faint longitudinal stripe commencing behind the PL eyes and continuing to the posterior margin; no lateral band visible; some darker radiating marks are barely visible; paturon and fang dark brown; labium, maxillae, sternum and coxae brown. Abdomen dark brown above and below; on the dorsal surface are numerous scattered light and dark

spots; ventral surface with a dark brown (possibly black in life) area from the epigastric furrow to the base of the spinnerets, surrounded by scattered light spots within a dark rounded field (see Fig. 1a); sides streaked with light and dark brown flecks. Legs brown with diffuse dark brown to blackish blotches.

Anterior row of eyes very slightly procurved, AM larger than AL. Ratio of eyes AM:AL:PM:PL = 23:17:43:32; distance AM:AM 8, AM:AL 5, AM:PM 12, AL:PM 17, PM:PM 23. Clypeus to AM 24. Length of first eye row 100, length of second eye row 103 micrometer units. The distance between the AM and AL eyes to the PM eye was measured between the lens of the eyes.

Chelicerae with three promarginal teeth, the middle one largest; three retromarginal teeth, the two internal ones of about equal size, the exterior one much smaller and almost obsolete. Labium longer than wide.

Epigynum with a short median guide; the transverse guide narrow at the base of the median guide, broadening distally to almost truncate ends (Fig. 1b).

Femur of fourth leg with 1 + 1 + 1 dorsal spines.

VARIATION: The colour pattern of the holotype is partly faded due to preservation. The smaller paratypes lack the pattern on the ventral surface of the abdomen but in both specimens a faint longitudinal stripe is present on the carapace. One paratype has a brown longitudinal wedge-shaped median stripe on the anterior dorsal surface of the abdomen; this stripe is outlined in dark brown with a white spot on either side midway and a pair of more widely spaced white spots near the posterior tip.

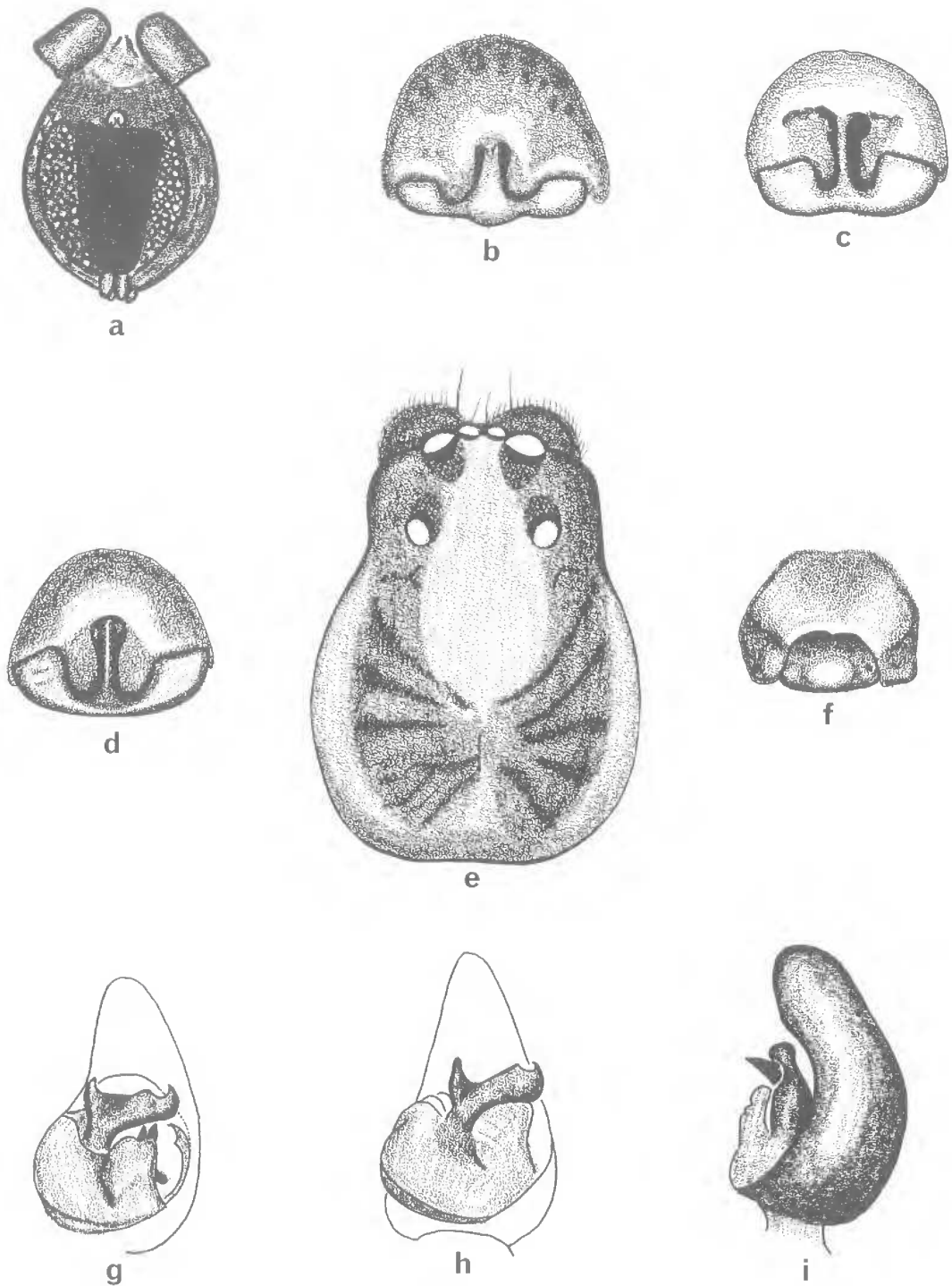


FIG. 1: a-d, *Lycosa mayama*: a, ventral surface of abdomen of holotype; b, epigynum of holotype; c-d, epigyna of paratypes.

e-i, *Lycosa neboissi*. e, carapace of holotype; f, epigynum of holotype; g, palpal organ of paratype; h, palpal organ rotated slightly; i, palpal organ lateral view.

TABLE 1: MEASUREMENTS OF LEG SEGMENTS OF HOLOTYPE OF *L. mayama* IN MM

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
1	5.4	2.9	4.1	3.6	2.3
2	4.8	2.8	3.4	3.4	2.4
3	4.6	2.3	2.9	3.6	2.3
4	6.4	2.8	4.7	5.7	2.7
Palp	3.0	1.5	1.6	—	2.3

The two paratypes have the ratio of eyes (expressed as per cent of the total width of the first row of eyes) AM:AL:PM:PL = 21:22:17:16; 41:45:35:37; distance AM:AM 9, 11; AM:AL 6, 8; AM:PM 17, 11; AL:PM 20, 16 (from lens of eye); PM:PM 26, 23. The clypeus equals the diameter of the AM. Length of the first eye row in micrometer units 85, 88; length of the second eye row in micrometer units 90, 93.

The epigyna of the holotype and the two paratypes are illustrated (Fig. 1b-d). Mature males were not collected.

**DIAGNOSIS:** A dark brown species; epigynum with a short narrow median guide, and a transverse guide that is narrow in the mid-section and has widely expanded truncate ends.

#### LIFE HISTORY

Unknown.

#### HABITAT

The two paratypes were collected from beneath stones.

#### DISTRIBUTION

Within 35 km of Melbourne, Victoria.

#### DERIVATION

From the aboriginal 'mayama' meaning stone.

#### *Lycosa neboissi* sp. nov.

(Fig. 1e-i)

#### MATERIAL EXAMINED

**HOLOTYPE:** National Museum, Victoria (NM), ♂ M (C.L. 3.6 mm), Rosanna, northeast of Melbourne, Victoria, collected by A. Neboiss, 18 July 1954. In spirit.

**PARATYPE:** Rosanna, A. Neboiss, 5 June 1954, ♂ M (C.L. 3.5 mm), NM.

#### DESCRIPTION

**HOLOTYPE:** Carapace light brown with a faint light median longitudinal stripe including a broad paler area behind the PL eyes, sides darker brown with radiating black-brown marks, and a pale lateral band (Fig. 1e); area around eyes black; paturon medium brown; labium, maxillae, sternum

and coxae uniform pale brown. Abdomen above pale brown to greyish with some scattered dark brown spots and blotches arranged in pairs along the median line, but somewhat distorted due to the wrinkled state of the abdomen; ventral surface and sides uniform grey brown. Legs pale brown; femora with dark blotches on the retrolateral surface and to a lesser extent the prolateral, dorsal and ventral surfaces; patellae with a conspicuous dark brown spot distally on either side; tibiae with three or four lateral blotches; remaining leg segments uniform pale brown or very faintly blotched.

Anterior row of eyes strongly procurved, the AL situated on a level below the AM; AM larger than AL; PM large, the distance between slightly greater than their diameter. Ratio of eyes AM:AL:PM:PL = 9:6:24:17; distance AM:AM 9, AM:AL 6, AM:PM 6, AL:PM 6, PM:PM 25. Clypeus to AM 14. Length of first eye row 46, length of second eye row 70 micrometer units.

Chelicerae with three promarginal teeth, the middle one largest; three retromarginal teeth of equal size. Labium longer than wide.

Epigynum rounded, the guide occupying all the epigynal depression (Fig. 1f).

Femur of fourth leg with 1 + 1 + 1 spines.

**PARATYPE:** Carapace similar to the female. Below carapace on the membrane above each coxa, are a pair of dark brown to black blotches, the posterior one of each pair being most conspicuous; the female has similar blotches above the coxae but these are not as well defined as in the male. Legs marked as in the female. Abdomen with a broad pale longitudinal median stripe, rounded anteriorly and gently tapering to touch the base of the spinnerets; sides darker with fine pale spots and numerous streaks and flecks of black-brown forming small black-brown blotches along the posterior margin of the pale longitudinal stripe; ventral surface with the dark pigmentation extending from the posterior sides to surround the spinnerets, and two widely spaced dusky bars commencing at the base of the lung-books and converging towards the middle of the ventral surface where they continue parallel to the base of the spinnerets.

TABLE 2: MEASUREMENTS OF LEG SEGMENTS OF HOLOTYPE OF *L. neboissi* IN MM

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
1	2.5	1.3	2.0	1.8	1.0
2	2.3	1.3	1.7	1.9	1.1
3	2.0	1.2	1.5	2.0	0.9
4	2.8	1.2	2.4	3.1	0.9
Palp	1.2	0.6	0.8	—	1.0

Anterior row of eyes strongly procurved, the AM larger than the AL; PM larger than the distance between. Ratio of eyes AM:AL:PM:PL = 8:6:26:20; distance AM:AM 8, AM:AL 7, AM:PM 5, AL:PM 5, PM:PM 23. Clypeus to AM 9. Length of first eye row 44, length of second eye row 71 micrometer units.

Palpal organ with a well developed median apophysis which is narrow at the base but flaring out into a broad structure with a sharp blade-like cusp on the inner tip and a curved hook on the outer tip (Fig. 1g, h). The complete structure of the palpal organ was not studied.

**DIAGNOSIS:** A small species with a rounded epigynum having an expanded guide that fills the depression; male palpal organ complex (Fig. 1g, h, i); patellae with a conspicuous dark brown spot on each side, and dark marks on the membrane above the coxae.

**LIFE HISTORY**

Unknown.

**HABITAT**

Collected from garden in a recently developed suburb.

**DISTRIBUTION**

Suburban area of Melbourne, Victoria.

**DERIVATION**

Named after Mr A. Neboiss, National Museum, Victoria in appreciation of assistance given, and for collecting the type material of this new species.

**ACKNOWLEDGMENTS**

I record my appreciation of the assistance given to me by Mr A. Neboiss during my visit to the National Museum, Victoria, and his efforts to collect further specimens of *Lycosa nevoissi* for dissection.

**LITERATURE CITED**

- MCKAY, R. J., 1973. The wolf spiders of Australia (Araneae: Lycosidae): 1. The bicolor group. *Mem. Qd Mus.* **16** (3): 375-98.